

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (canceled)

1 Claim 2 (previously presented): The method of claim 4 wherein
2 the selected set of configuration information for a data
3 forwarding device is a most recently committed set of
4 configuration information for the data forwarding device.

1 Claim 3 (previously presented): The method of claim 4 wherein
2 the selected set of configuration information for a data
3 forwarding device is selected by a user.

1 Claim 4 (currently amended): A method comprising:
2 a) accepting at least a part of a selected set of
3 configuration information for a data forwarding device;
4 b) accepting at least a part of a set of candidate
5 configuration information for the data forwarding device;
6 and
7 c) determining differences, if any, between
8 - the at least a part of the set of candidate
9 configuration information for the data forwarding
10 device, and
11 - the at least a part of the selected set of
12 configuration information for the data forwarding
13 device,
14 wherein the set of candidate configuration
15 information for the data forwarding device includes a
16 plurality of statements,
17 wherein a first statement of the plurality of
18 statements of the set of candidate configuration information

19 for the data forwarding device contains a second statement of
20 the plurality of statements to define at least a part of a
21 hierarchical configuration,

22 wherein the selected set of configuration
23 information for the data forwarding device includes a
24 plurality of statements, and

25 wherein a first statement of the plurality of
26 statements of the selected set of configuration information
27 for the data forwarding device contains a second statement of
28 the plurality of statements to define at least a part of a
29 hierarchical configuration,

30 wherein the at least the part of the set of
31 candidate configuration information only includes a defined
32 first statement and any of the plurality of statements that
33 are descendants of the defined first statement in the
34 hierarchical configuration, and

35 wherein the at least the part of the selected set of
36 configuration information includes a corresponding first
37 statement and any of the plurality of statements that are
38 descendants of the defined first statement in the hierarchical
39 configuration.

Claim 5 (canceled)

1 Claim 6 (currently amended): The method of claim 4 5 wherein
2 the defined first statement is defined based on a statement of
3 the hierarchical candidate configuration information on which
4 a user is presently working.

1 Claim 7 (original): The method of claim 4 5 wherein the
2 defined first statement is defined by a user input.

1 Claim 8 (original): The method of claim 4 wherein the
2 hierarchical configuration information includes at least two
3 categories at a first hierarchical level, and
4 wherein the at least two categories are selected
5 from a group of data forwarding device configuration
6 categories consisting of:
7 A) chassis configuration information;
8 B) class-of-service configuration information;
9 C) firewall configuration information;
10 D) forwarding-options configuration information;
11 E) groups configuration information;
12 F) interfaces configuration information;
13 G) policy-options configuration information;
14 H) protocols configuration information;
15 I) routing-instances configuration information;
16 J) routing-options configuration information;
17 K) network management protocol configuration
18 information; and
19 L) system configuration information.

1 Claim 9 (original): The method of claim 4 wherein the
2 hierarchical configuration information includes at least two
3 categories at a given hierarchical level, the method further
4 comprising:
5 d) associating a predetermined permission value with a
6 user that is logged in; and
7 e) determining whether the logged in user is permitted
8 to access one of the at least two categories of
9 configuration information based on the predetermined
10 permission.

1 Claim 10 (previously presented): A method comprising:

2 a) accepting at least a part of a selected set of
3 configuration information for a data forwarding device;
4 b) accepting at least a part of a set of candidate
5 configuration information for the data forwarding device;
6 and
7 c) determining differences, if any, between
8 - the at least a part of the set of candidate
9 configuration information for the data forwarding
10 device, and
11 - the at least a part of the selected set of
12 configuration information for the data forwarding
13 device,
14 wherein the act of accepting at least a part of a
15 selected set of configuration information for a data
16 forwarding device is performed by accessing a storage device
17 of the data forwarding device,
18 wherein the act of accepting at least a part of a
19 set of candidate configuration information for the data
20 forwarding device is performed by accessing a storage device
21 of the data forwarding device; and
22 wherein the act of determining differences, if any,
23 between
24 - the at least the part of the set of candidate
25 configuration information for the data forwarding
26 device, and
27 - the at least the part of the selected set of
28 configuration information for the data forwarding
29 device,
30 is performed by a component of the data forwarding device.

1 Claim 11 (previously presented): A method comprising:

- 2 a) accepting at least a part of a selected set of
3 configuration information for a data forwarding device;
4 b) accepting at least a part of a set of candidate
5 configuration information for the data forwarding device;
6 and
7 c) determining differences, if any, between
8 - the at least a part of the set of candidate
9 configuration information for the data forwarding
10 device, and
11 - the at least a part of the selected set of
12 configuration information for the data forwarding
13 device,
14 wherein the set of candidate configuration
15 information for the data forwarding device includes a
16 plurality of statements,
17 wherein the selected set of configuration
18 information for the data forwarding device includes a
19 plurality of statements, and
20 wherein the act of determining differences, if any,
21 between
22 - the at least a part of the set of candidate
23 configuration information for the data
24 forwarding device, and
25 - the at least a part of the selected set of
26 configuration information for the data
27 forwarding device,
28 considers changes to statements without regard to parameter
29 values.

Claim 12 (canceled)

1 Claim 13 (original): In a data forwarding device, a facility
2 for checking at least a part of a set of candidate
3 configuration information, the facility comprising:
4 a) a storage device for storing at least one set of
5 configuration information for the data forwarding device;
6 b) an input facility for
7 i) accepting at least a part of a selected one of
8 the at least one set of configuration information
9 for a data forwarding device, and
10 ii) accepting at least a part of a set of candidate
11 configuration information for the data forwarding
12 device; and
13 c) a configuration comparison facility for determining
14 differences, if any, between
15 - the at least a part of the set of candidate
16 configuration information for the data forwarding
17 device, and
18 - the at least a part of the selected one of the at
19 least one set of configuration information for the
20 data forwarding device.

1 Claim 14 (currently amended): A method for determining
2 differences in at least a part of sets of configuration
3 information, comprising:
4 a) accepting at least a part of a first set of
5 configuration information for a data forwarding device,
6 wherein the first set of configuration information has
7 not been saved on the data forwarding device as a
8 committed configuration, and wherein no copied instance
9 of the first set of configuration information has been
10 saved on the data forwarding device as a committed
11 configuration;

12 b) accepting at least a part of a second set of
13 configuration information for the data forwarding device,
14 wherein the second set of configuration information has
15 been saved on the data forwarding device; and
16 c) determining differences, if any, between
17 - the first set of configuration information for a
18 data forwarding device, and
19 - the second set of configuration information for a
20 data forwarding device.

1 Claim 15 (previously presented): The method of claim 14
2 wherein the first set of configuration information for a data
3 forwarding device includes a plurality of statements,
4 wherein a first statement of the plurality of
5 statements of the first set of configuration information for a
6 data forwarding device contains a second statement of the
7 plurality of statements to define at least a part of a
8 hierarchical configuration,

9 wherein the second set of configuration information
10 for a data forwarding device includes a plurality of
11 statements, and

12 wherein a first statement of the plurality of
13 statements of the second set of configuration information for
14 a data forwarding device contains a second statement of the
15 plurality of statements to define at least a part of a
16 hierarchical configuration.

1 Claim 16 (previously presented): The method of claim 15
2 wherein the at least the part of the first set of
3 configuration information for a data forwarding device only
4 includes a defined first statement and any of the plurality of

5 statements that are descendants of the defined first statement
6 in the hierarchical configuration, and

7 wherein the at least the part of the second set of
8 configuration information for a data forwarding device
9 includes a corresponding first statement and any of the
10 plurality of statements that are descendants of the defined
11 first statement in the hierarchical configuration.

1 Claim 17 (original): The method of claim 16 wherein the
2 defined first statement is defined by a user input.

1 Claim 18 (original): The method of claim 15 wherein the
2 hierarchical configuration information includes at least two
3 categories at a first hierarchical level, and
4 wherein the at least two categories are selected
5 from a group of data forwarding device configuration
6 categories consisting of:

- 7 A) chassis configuration information;
- 8 B) class-of-service configuration information;
- 9 C) firewall configuration information;
- 10 D) forwarding-options configuration information;
- 11 E) groups configuration information;
- 12 F) interfaces configuration information;
- 13 G) policy-options configuration information;
- 14 H) protocols configuration information;
- 15 I) routing-instances configuration information;
- 16 J) routing-options configuration information;
- 17 K) network management protocol configuration
18 information; and
- 19 L) system configuration information.

1 Claim 19 (previously presented): The method of claim 14
2 wherein the act of accepting at least a part of the first set
3 of configuration information for the data forwarding device is
4 performed by accessing a storage device of the data forwarding
5 device,

6 wherein the act of accepting at least a part of the
7 second set of configuration information for the data
8 forwarding device is performed by accessing a storage device
9 of the data forwarding device, and

10 wherein the act of determining differences, if any,
11 between

12 - the first set of configuration information
13 for the data forwarding device, and
14 - the second set of configuration information
15 for the data forwarding device,

16 is performed by a component of the data forwarding device.

1 Claim 20 (previously presented): The method of claim 14
2 wherein the first set of configuration information for a data
3 forwarding device includes a plurality of statements, at least
4 some of which define parameter values,

5 wherein the second set of configuration information
6 for the data forwarding device includes a plurality of
7 statements, at least some of which define parameter values,
8 and

9 wherein the act of determining differences, if any,
10 between

11 - the first set of configuration information
12 for the data forwarding device, and
13 - the second set of configuration information
14 for the data forwarding device,

15 considers a selected one of (a) statements only, (b) parameter
16 values only, and (c) statements and parameter values.

Claim 21 (cancelled)

1 Claim 22 (original): In a data forwarding device, a facility
2 for comparing at least a part of sets of configuration
3 information, the facility comprising:

- 4 a) a storage device for storing at least two sets of
5 configuration information for the data forwarding device;
- 6 b) an input facility for
 - 7 i) accepting at least a part of a first selected
8 one of the at least two sets of configuration
9 information for the data forwarding device, and
 - 10 ii) accepting at least a part of a second selected
11 one of the at least two sets of configuration
12 information for the data forwarding device; and
- 13 c) a configuration comparison facility for determining
14 differences, if any, between
 - 15 - the first selected one of the at least two sets
16 of configuration information for the data forwarding
17 device, and
 - 18 - the second selected one of the at least two sets
19 of configuration information for the data forwarding
20 device.

1 Claim 23 (currently amended): A method comprising:
2 receiving with a data forwarding device, a first set of
3 configuration information for the data forwarding device,
4 wherein the first set of configuration information has not yet
5 been committed on the data forwarding device, and wherein no
6 copied instance of the first set of configuration information

7 has been saved on the data forwarding device as a committed
8 configuration;

9 receiving with the data forwarding device, a second set
10 of configuration information for the data forwarding device;
11 determining with the data forwarding device, differences
12 between the first and second sets of configuration
13 information.

1 Claim 24 (original): The method according to claim 23,
2 wherein the data forwarding device is a router.

1 Claim 25 (previously presented): A data forwarding device
2 comprising:
3 a memory storing a first set of configuration information
4 and a second set of configuration information for the data
5 forwarding device; and
6 a processing module for determining differences between
7 the first and second sets of configuration information stored
8 in the memory.

1 Claim 26 (previously presented): A data forwarding device
2 comprising:
3 a plurality of data interfaces for connection to
4 respective data lines;
5 a mechanism for forwarding data from one data interface
6 to another data interface;
7 a user interface for entering configuration information;
8 a memory storing a first set of configuration information
9 and a second set of configuration information; and
10 a processing module for determining differences between
11 the first and second sets of configuration information stored
12 in the memory.

1 Claim 27 (previously presented): The method of claim 10
2 wherein the selected set of configuration information for a
3 data forwarding device is a most recently committed set of
4 configuration information for the data forwarding device.

1 Claim 28 (previously presented): The method of claim 10
2 wherein the selected set of configuration information for a
3 data forwarding device is selected by a user.

1 Claim 29 (previously presented): The method of claim 11
2 wherein the selected set of configuration information for a
3 data forwarding device is a most recently committed set of
4 configuration information for the data forwarding device.

1 Claim 30 (previously presented): The method of claim 11
2 wherein the selected set of configuration information for a
3 data forwarding device is selected by a user.

1 Claim 31 (previously presented): The method of claim 14
2 wherein a command to save the first set of configuration
3 information on the data forwarding device as a committed
4 configuration has not occurred.

1 Claim 32 (previously presented): The method of claim 14
2 wherein the first set of configuration information is from an
3 uncommitted candidate configuration, and
4 wherein the second set of configuration information is
5 from a configuration that has been saved on the data
6 forwarding device as a committed configuration.

1 Claim 33 (previously presented): The method of claim 10
2 wherein the candidate set of configuration information is an
3 uncommitted candidate configuration, and
4 wherein the selected set of configuration information is
5 a configuration that has been saved on the data forwarding
6 device as a committed configuration.